YEAR (2030) WITH PROJECT CONDITIONS (HCM METHODOLOGY)

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	<u>_</u>	×	N.		`	Ĺ	7	7	~	14	#	
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	الوالو	<b>↑</b> ↑		ሻ	ተተ	7	ሻ	1>		44	<b>↑</b>	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.95		1.00	0.95	1.00	1.00	1.00		0.97	1.00	0.88
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3526		1770	3539	1583	1770	1826		3433	1863	2787
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3526		1770	3539	1583	1770	1826		3433	1863	2787
Volume (vph)	560	1509	40	30	1278	274	20	200	30	315	50	770
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	560	1509	40	30	1278	274	20	200	30	315	50	770
RTOR Reduction (vph)	0	1	0	0	0	86	0	4	0	0	0	437
Lane Group Flow (vph)	560	1548	0	30	1278	188	20	226	0	315	50	333
Turn Type	Prot			Prot		Perm	Prot			Prot	_	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						6
Actuated Green, G (s)	21.0	63.4		3.3	45.7	45.7	1.9	19.5		13.1	30.7	30.7
Effective Green, g (s)	21.0	63.4		3.3	45.7	45.7	1.9	19.5		13.1	30.7	30.7
Actuated g/C Ratio	0.18	0.55		0.03	0.40	0.40	0.02	0.17		0.11	0.27	0.27
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	625	1939		51	1403	627	29	309		390	496	742
v/s Ratio Prot	c0.16	0.44		0.02	c0.36		0.01	c0.12		c0.09	0.03	
v/s Ratio Perm						0.12						0.12
v/c Ratio	0.90	0.80		0.59	0.91	0.30	0.69	0.73		0.81	0.10	0.45
Uniform Delay, d1	46.1	20.8		55.3	32.9	23.8	56.4	45.4		49.9	31.9	35.3
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	15.4	2.4		16.1	9.1	0.3	51.3	8.6		11.6	0.1	0.4
Delay (s)	61.5	23.2		71.5	42.0	24.1	107.7	54.0		61.5	32.0	35.7
Level of Service	E	C		E	D	C	F	D		E	C	D
Approach Delay (s)		33.4			39.5			58.3			42.7	
Approach LOS		C			D			$\mathbf{E}$			D	
Intersection Summary												
HCM Average Control D	elav		38.6	1	HCM Le	vel of Se	rvice		D	_		
HCM Volume to Capacity	-		0.86	,	.10141 1.0	101 01 00	1 7 100		D			
Actuated Cycle Length (s			115.3		Sum of 1	ost time (	(2)		16.0			
Intersection Capacity Util			86.0%			el of Serv			10.0 E			
Analysis Period (min)	112411011		15	,	CO LCV	ci di bel	100		22			
c Critical Lane Group			13									
c Critical Lane Oroup												

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Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	<u>¥</u>	<b>^</b>	<b>↑</b> ↑		14/4	7		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0		
Lane Util. Factor	1.00	0.95	0.95		0.97	1.00		
Frt	1.00	1.00	0.99		1.00	0.85		
Flt Protected	0.95	1.00	1.00		0.95	1.00		
Satd. Flow (prot)	1770	3539	3519		3433	1583		
Flt Permitted	0.95	1.00	1.00		0.95	1.00		
Satd. Flow (perm)	1770	3539	3519		3433	1583		
Volume (vph)	150	1514	1161	46	96	350		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Adj. Flow (vph)	150	1514	1161	46	96	350		
RTOR Reduction (vph)	0	0	3	0	0	29		
Lane Group Flow (vph)	150	1514	1204	0	96	321		
Turn Type	Prot					pm+ov		
Protected Phases	7	4	8		6	7		
Permitted Phases						6		
Actuated Green, G (s)	11.0	41.4	26.4		7.5	18.5		
Effective Green, g (s)	11.0	41.4	26.4		7.5	18.5		
Actuated g/C Ratio	0.19	0.73	0.46		0.13	0.33		
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	342	2575	1633	-	453	626		
v/s Ratio Prot	0.08	c0.43	c0.34		0.03	c0.10		
v/s Ratio Perm						0.10		
v/c Ratio	0.44	0.59	0.74		0.21	0.51		
Uniform Delay, d1	20.2	3.7	12.4		22.1	15.5		
Progression Factor	1.00	1.00	1.00		1.00	1.00		
Incremental Delay, d2	0.9	0.3	1.8		0.2	0.7		
Delay (s)	21.1	4.0	14.2		22.3	16.3		
Level of Service	C	Α	В		С	В		
Approach Delay (s)		5.6	14.2		17.6			
Approach LOS		Α	В		В			
Intersection Summary				_				
HCM Average Control De	elay		10.3	H	ICM Lev	vel of Servi	ce B	
HCM Volume to Capacity	y ratio		0.70					
Actuated Cycle Length (s)	)		56.9	S	um of lo	st time (s)	12.0	
Intersection Capacity Util			61.9%	I	CU Leve	el of Service	В	
Analysis Period (min)			15					
c Critical Lane Group								

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	<b>→</b>	<b>→</b>	<b>←</b>	1	<b>\</b>	4		
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	<u></u>	ተተ	<b>^</b>	7	J.	7		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00		
Frt	1.00	1.00	1.00	0.85	1.00	0.85		
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00		
Satd. Flow (prot)	1770	3539	3539	1583	1770	1583		
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00		
Satd. Flow (perm)	1770	3539	3539	1583	1770	1583		
Volume (vph)	190	1449	1187	181	331	290		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Adj. Flow (vph)	190	1449	1187	181	331	290		
RTOR Reduction (vph)	0	0	0	92	0	214		
Lane Group Flow (vph)	190	1449	1187	89	331	76		
Turn Type	Prot			Perm		Perm		<u> </u>
Protected Phases	7	4	8		6			
Permitted Phases				8	ŭ	6		
Actuated Green, G (s)	11.0	49.8	34.8	34.8	20.6	20.6		
Effective Green, g (s)	11.0	49.8	34.8	34.8	20.6	20.6		
Actuated g/C Ratio	0.14	0.64	0.44	0.44	0.26	0.26		
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	248	2248	1571	703	465	416		
v/s Ratio Prot	c0.11	0.41	c0.34	, 00	c0.19	120		
v/s Ratio Perm		01.12		0.06		0.05		
v/c Ratio	0.77	0.64	0.76	0.13	0.71	0.18		
Uniform Delay, d1	32.5	8.8	18.2	12.8	26.2	22.4		
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		
Incremental Delay, d2	13.2	0.6	2.1	0.1	5.1	0.2		
Delay (s)	45.6	9.5	20.4	12.9	31.3	22.6		
Level of Service	D	A	C	В	C	C		
Approach Delay (s)	~	13.7	19.4		27.2			
Approach LOS		В	В		C			
Intersection Summary								
HCM Average Control D	elay		18.1	H	ICM Lev	el of Servic	e B	
HCM Volume to Capacity	-		0.74					
Actuated Cycle Length (s	•		78.4	S	um of lo	st time (s)	12.0	
Intersection Capacity Util			71.7%			el of Service	С	
Analysis Period (min)			15					
c Critical Lane Group								
c Critical Lanc Group								

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Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	ሻ	<b>^</b>	<b>^</b>	7	¥	7	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	1.00	0.85	
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	3539	1583	1770	1583	
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3539	3539	1583	1770	1583	
Volume (vph)	70	1641	1338	30	90	90	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	70	1641	1338	30	90	90	
RTOR Reduction (vph)	0	0	0	14	0	75	
Lane Group Flow (vph)	70	1641	1338	16	90	15	
Turn Type	Prot	1011	*****	Perm		Perm	
Protected Phases	7	4	8	1 01111	6	I CIIII	
Permitted Phases	,	7	Ü	8	O	6	
Actuated Green, G (s)	4.5	38.2	29.7	29.7	8.9	8.9	
Effective Green, g (s)	4.5	38.2	29.7	29.7	8.9	8.9	
Actuated g/C Ratio	0.08	0.69	0.54	0.54	0.16	0.16	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	145	2454	1908	853	286	256	
v/s Ratio Prot	0.04	c0.46	0.38	633	c0.05	230	
v/s Ratio Perm	0.04	CU.40	0.56	0.01	co.03	0.01	
v/c Ratio	0.48	0.67	0.70	0.01	0.21	0.01	
	24.2				0.31		
Uniform Delay, d1	1.00	4.8	9.4	5.9	20.4	19.5	
Progression Factor		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.5 26.7	0.7	1.2	0.0	0.6	0.1	
Delay (s) Level of Service		5.5	10.6	5.9	21.0	19.6	
	С	A	B	A	C	В	
Approach Delay (s)		6.4	10.5		20.3		
Approach LOS		A	В		С		
Intersection Summary							
HCM Average Control De			8.9	Н	ICM Lev	el of Service	ce A
HCM Volume to Capacity	,		0.60	_			
Actuated Cycle Length (s)	,		55.1			st time (s)	8.0
Intersection Capacity Util	ızatıon		57.0%	I	CU Leve	l of Service	В
Analysis Period (min)			15				
<ul> <li>c Critical Lane Group</li> </ul>							

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Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	<u> </u>	44	<b>^</b>	*	7	7	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	1.00	0.85	
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	3539	1583	1770	1583	
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3539	3539	1583	1770	1583	
Volume (vph)	20	1671	1308	10	40	20	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	20	1671	1308	10	40	20	
RTOR Reduction (vph)	0	0	0	4	0	17	
Lane Group Flow (vph)	20	1671	1308	6	40	3	
Turn Type	Prot			Perm		Perm	
Protected Phases	7	4	8	1 01111	6		
Permitted Phases	•		Ü	8		6	
Actuated Green, G (s)	1.0	32.5	27.5	27.5	6.9	6.9	
Effective Green, g (s)	1.0	32.5	27.5	27.5	6.9	6.9	
Actuated g/C Ratio	0.02	0.69	0.58	0.58	0.15	0.15	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	37	2427	2053	918	258	230	
v/s Ratio Prot	0.01	c0.47	0.37	7.0	c0.02	250	
v/s Ratio Perm	0.01	00.77	0.57	0.00	00.02	0.00	
v/c Ratio	0.54	0.69	0.64	0.01	0.16	0.01	
Uniform Delay, d1	23.0	4.4	6.6	4.2	17.7	17.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	15.1	0.8	0.7	0.0	0.3	0.0	
Delay (s)	38.1	5.3	7.3	4.2	18.0	17.4	
Level of Service	D	A	A	A	В	В	
Approach Delay (s)	2	5.7	7.3		17.8	_	
Approach LOS		A	A		В		
Intersection Summary							
HCM Average Control De	elav	_	6.6		ICM Lev	el of Service	A
HCM Volume to Capacity	•		0.60	•		21 01 501 1100	••
Actuated Cycle Length (s			47.4	S	ium of lo	st time (s)	8.0
Intersection Capacity Util			56.2%			of Service	В
Analysis Period (min)	ALWII (II		15	•	20 D070	51 551 7100	~
c Critical Lane Group			15				
Carrieda Danie Group							

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		<b>-</b>	*	*		•	7	- 1	7	•	*	•
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	ተተ <sub>ጉ</sub>		ሻ	<b>↑</b> ↑↑			₩		ሻ	1→	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.99			0.96		1.00	0.89	
Flt Protected	0.95	1.00		0.95	1.00			0.98		0.95	1.00	
Satd. Flow (prot)	1770	5072		1770	5059			1740		1770	1666	
Flt Permitted	0.95	1.00		0.95	1.00			0.81		0.70	1.00	
Satd. Flow (perm)	1770	5072		1770	5059			1441		1304	1666	
Volume (vph)	71	1629	30	30	1167	41	40	20	30	50	30	71
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	71	1629	30	30	1167	41	40	20	30	50	30	71
RTOR Reduction (vph)	0	2	0	0	3	0	0	16	0	0	63	0
Lane Group Flow (vph)	71	1657	0	30	1205	0	0	74	0	50	38	0
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2			6		
Actuated Green, G (s)	5.5	34.6		2.7	31.8			9.4		9.4	9.4	
Effective Green, g (s)	5.5	34.6		2.7	31.8			9.4		9.4	9.4	
Actuated g/C Ratio	0.07	0.43		0.03	0.39			0.12		0.12	0.12	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)	120	2172		59	1991			168		152	194	
v/s Ratio Prot	c0.04	c0.33		0.02	0.24			100		152	0.02	
v/s Ratio Perm				***-	• • • • • • • • • • • • • • • • • • • •			c0.05		0.04	0.02	
v/c Ratio	0.59	0.76		0.51	0.61			0.44		0.33	0.20	
Uniform Delay, d1	36.6	19.6		38.4	19.5			33.3		32.8	32.3	
Progression Factor	1.00	1.00		1.00	1.00			1.00		1.00	1.00	
Incremental Delay, d2	7.6	1.6		6.7	0.5			1.8		1.3	0.5	
Delay (s)	44.2	21.3		45.1	20.0			35.1		34.1	32.8	
Level of Service	D	C		D	C			D		C	C	
Approach Delay (s)	D	22.2		D	20.6			35.1		Ü	33.2	
Approach LOS		C			20.0 C			D			C	
Intersection Summary								_				
HCM Average Control De	elav		22.5	F	ICM Lev	vel of Se	rvice		С			
HCM Volume to Capacity	•		0.71	•	201.1 1.0	. 51 01 00			C			
Actuated Cycle Length (s			80.8	•	Sum of lo	st time (	(2		34.1			
Intersection Capacity Util	,		57.2%			el of Serv			В			
Analysis Period (min)	Lation		15	1	CO LCV	7 01 DCIV	100		Б			
c Critical Lane Group			13									
o oritical Danc Oroup												

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Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR	
Lane Configurations	ř	ተተተ	t	ተተተ	7	<b>"</b>	7	<u> </u>
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.91	1.00	0.91	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	1.00	0.85	1.00	0.85	
Flt Protected	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	5085	1770	5085	1583	1770	1583	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	5085	1770	5085	1583	1770	1583	
Volume (vph)	89	1640	10	1280	103	122	107	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	89	1640	10	1280	103	122	107	
RTOR Reduction (vph)	0	0	0	0	37	0	93	
Lane Group Flow (vph)	89	1640	10	1280	66	122	14	
Turn Type	Prot		Prot		Perm		Perm	
Protected Phases	7	4	3	8		6		
Permitted Phases					8		6	
Actuated Green, G (s)	7.9	38.4	1.0	31.5	31.5	10.8	10.8	
Effective Green, g (s)	7.9	38.4	1.0	31.5	31.5	10.8	10.8	
Actuated g/C Ratio	0.10	0.46	0.01	0.38	0.38	0.13	0.13	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	168	2350	21	1928	600	230	206	
v/s Ratio Prot	c0.05	c0.32	0.01	0.25		c0.07		
v/s Ratio Perm					0.04		0.01	
v/c Ratio	0.53	0.70	0.48	0.66	0.11	0.53	0.07	
Uniform Delay, d1	35.8	17.7	40.8	21.4	16.7	33.8	31.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	3.0	0.9	16.0	0.9	0.1	2.3	0.1	
Delay (s)	38.8	18.7	56.8	22.3	16.8	36.1	31.9	
Level of Service	D	В	E	C	$_{\mathrm{B}}$	D	C	
Approach Delay (s)		19.7		22.1		34.1		
Approach LOS		В		C		C		
Intersection Summary								
HCM Average Control D	elay		21.7	F	ICM Lev	vel of Ser	rvice	С
HCM Volume to Capacity	•		0.67					
Actuated Cycle Length (s			83.1	5	Sum of lo	st time (	s)	32.9
Intersection Capacity Util	,		51.8%			el of Serv		A
Analysis Period (min)			15					
c Critical Lane Group								
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	<b>^^</b>		ሻ	<b>^^</b>			4	7	ሻ	<del>-</del>	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91		0.95	0.95	1.00	0.95	0.95	0.88
Frt	1.00	0.99		1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	0.99	1.00	0.95	0.98	1.00
Satd. Flow (prot)	1770	5050		1770	4924		1681	1753	1583	1681	1726	2787
Flt Permitted	0.95	1.00		0.95	1.00		0.95	0.99	1.00	0.95	0.98	1.00
Satd. Flow (perm)	1770	5050		1770	4924		1681	1753	1583	1681	1726	2787
Volume (vph)	170	1432	70	40	854	229	70	50	30	238	80	500
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	170	1432	70	40	854	229	70	50	30	238	80	500
RTOR Reduction (vph)	0	4	0	0	37	0	0	0	27	0	0	427
Lane Group Flow (vph)	170	1498	0	40	1046	0	58	62	3	155	163	73
Turn Type	Prot	_		Prot			Split		Perm	Split		Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases									2			6
Actuated Green, G (s)	13.6	34.2		3.3	23.9		8.7	8.7	8.7	14.0	14.0	14.0
Effective Green, g (s)	13.6	34.2		3.3	23.9		8.7	8.7	8.7	14.0	14.0	14.0
Actuated g/C Ratio	0.14	0.35		0.03	0.25		0.09	0.09	0.09	0.15	0.15	0.15
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	250	1792		61	1221		152	158	143	244	251	405
v/s Ratio Prot	c0.10	c0.30		0.02	0.21		0.03	c0.04		0.09	c0.09	
v/s Ratio Perm									0.00			0.03
v/c Ratio	0.68	0.84		0.66	0.86		0.38	0.39	0.02	0.64	0.65	0.18
Uniform Delay, d1	39.3	28.5		46.0	34.6		41.3	41.4	40.0	38.8	38.9	36.2
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.4	3.6		22.6	6.1		1.6	1.6	0.1	5.3	5.7	0.2
Delay (s)	46.7	32.1		68.6	40.7		42.9	43.0	40.0	44.1	44.6	36.4
Level of Service	D	C		E	D		D	D	D	D	D	D
Approach Delay (s)		33.6			41.7			42.4			39.5	
Approach LOS		C			D			D			D	
Intersection Summary												
HCM Average Control De	-		37.6	I	ICM Lev	vel of Sei	vice		D			
HCM Volume to Capacity			0.74									
Actuated Cycle Length (s)			96.4			st time (	,		36.2			
Intersection Capacity Util	ization		57.9%	I	CU Leve	el of Serv	rice		В			
Analysis Period (min)			15									
<ul> <li>c Critical Lane Group</li> </ul>												

134: Pacific Coast Hwy	& Huni	ington								sy	nchro 6	кероп
	۶	-	$\rightarrow$	✓	<b>←</b>	•	4	<b>†</b>	<i>&gt;</i>	<b>&gt;</b>	<b>↓</b>	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	75	<b>^</b>	7	ሻ	<b>†</b>	7		414		ሻ	<u>-</u>	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		0.95		0.95	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		0.92		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.99		0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583		3233		1681	1770	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00		0.99		0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583		3233		1681	1770	1583
Volume (vph)	40	1619	10	60	1033	110	10	10	20	50	70	30
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	40	1619	10	60	1033	110	10	10	20	50	70	30
RTOR Reduction (vph)	0	0	4	0	0	45	0	18	0	0	0	27
Lane Group Flow (vph)	40	1619	6	60	1033	65	0	22	0	50	70	3
Turn Type	Prot		Perm	Prot		Perm	Split			Split		Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8						6
Actuated Green, G (s)	3.6	44.6	44.6	5.1	46.1	46.1		6.6		9.0	9.0	9.0
Effective Green, g (s)	3.6	44.6	44.6	5.1	46.1	46.1		6.6		9.0	9.0	9.0
Actuated g/C Ratio	0.04	0.55	0.55	0.06	0.57	0.57		0.08		0.11	0.11	0.11
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	78	1941	868	111	2007	898		262		186	196	175
v/s Ratio Prot	0.02	c0.46		c0.03	0.29			c0.01		0.03	c0.04	
v/s Ratio Perm			0.00			0.04						0.00
v/c Ratio	0.51	0.83	0.01	0.54	0.51	0.07		0.08		0.27	0.36	0.02
Uniform Delay, d1	38.0	15.3	8.3	37.0	10.8	7.9		34.5		33.1	33.5	32.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	5.6	3.3	0.0	5.3	0.2	0.0		0.1		0.8	1.1	0.0
Delay (s)	43.6	18.5	8.3	42.2	11.0	8.0		34.7		33.9	34.6	32.3
Level of Service	D	В	Α	D	В	Α		C		C	C	C
Approach Delay (s)		19.1			12.3			34.7			33.9	
Approach LOS		В			В			C			C	
Intersection Summary												
HCM Average Control D			17.3	I	ICM Lev	vel of Sea	rvice		В			
HCM Volume to Capacity			0.67									
Actuated Cycle Length (s	•		81.3			st time (			16.0			
Intersection Capacity Util	ization		66.4%	I	CU Leve	el of Serv	rice		C			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ليوليو	<b>↑</b> ↑↑		75	ተተ	7	ሻ	<b>^</b>	7	14/4	<b>†</b>	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91		1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5072		1770	3539	1583	1770	3539	1583	3433	1863	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	5072		1770	3539	1583	1770	3539	1583	3433	1863	1583
Volume (vph)	138	1671	30	20	1104	300	20	50	10	490	80	199
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	138	1671	30	20	1104	300	20	50	10	490	80	199
RTOR Reduction (vph)	0	2	0	0	0	177	0	0	9	0	0	0
Lane Group Flow (vph)	138	1699	0	20	1104	123	20	50	1	490	80	199
Turn Type	Prot			Prot		Perm	Prot		Perm	Prot		Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			Free
Actuated Green, G (s)	6.7	39.1		2.2	34.6	34.6	2.2	10.4	10.4	16.6	24.8	84.3
Effective Green, g (s)	6.7	39.1		2.2	34.6	34.6	2.2	10.4	10.4	16.6	24.8	84.3
Actuated g/C Ratio	0.08	0.46		0.03	0.41	0.41	0.03	0.12	0.12	0.20	0.29	1.00
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	273	2352		46	1453	650	46	437	195	676	548	1583
v/s Ratio Prot	c0.04	c0.34		0.01	0.31		0.01	0.01		c0.14	c0.04	
v/s Ratio Perm						0.08			0.00			0.13
v/c Ratio	0.51	0.72		0.43	0.76	0.19	0.43	0.11	0.01	0.72	0.15	0.13
Uniform Delay, d1	37.2	18.2		40.4	21.3	15.9	40.4	32.9	32.4	31.7	21.9	0.0
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.5	1.1		6.5	2.3	0.1	6.5	0.1	0.0	3.9	0.1	0.2
Delay (s)	38.7	19.3		46.9	23.6	16.0	46.9	33.0	32.4	35.6	22.1	0.2
Level of Service	D	В		D	C	. B	D	C	C	D	C	Α
Approach Delay (s)		20.8			22.4			36.4			25.0	
Approach LOS		С			C			D			C	
Intersection Summary											_	
HCM Average Control D	•		22.4	I	ICM Le	vel of Se	rvice		C			
HCM Volume to Capacity			0.58									
Actuated Cycle Length (s			84.3			ost time (			8.0			
Intersection Capacity Util	ization		66.9%	I	CU Leve	el of Serv	rice		C			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	ተተተ	7	ሻ	ተተተ	7		4 <b>î</b>			4	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0			4.0	4.0
Lane Util. Factor	1.00	0.91			0.91	1.00		0.95			1.00	1.00
Frt	1.00	1.00			1.00	0.85		1.00			1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00		0.98			0.95	1.00
Satd. Flow (prot)	1770	5085			5085	1583		3453			1770	1583
Flt Permitted	0.95	1.00			1.00	1.00		0.85			0.74	1.00
Satd. Flow (perm)	1770	5085			5085	1583		3023			1385	1583
Volume (vph)	100	1841	0	0	1184	30	10	10	0	230	0	220
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	100	1841	0	0	1184	30	10	10	0	230	0	220
RTOR Reduction (vph)	0	0	0	0	0	17	0	0	0	0	0	123
Lane Group Flow (vph)	100	1841	0	0	1184	13	0	20	0	0	230	97
Turn Type	Prot		Perm	Prot		Perm	Perm			Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2			6		6
Actuated Green, G (s)	5.3	33.5			24.2	24.2		14.6			14.6	14.6
Effective Green, g (s)	5.3	33.5			24.2	24.2		14.6			14.6	14.6
Actuated g/C Ratio	0.09	0.60			0.43	0.43		0.26			0.26	0.26
Clearance Time (s)	4.0	4.0			4.0	4.0		4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0			3.0	3.0
Lane Grp Cap (vph)	167	3036			2194	683		787			360	412
v/s Ratio Prot	0.06	c0.36			0.23							
v/s Ratio Perm						0.01		0.01			c0.17	0.06
v/c Ratio	0.60	0.61			0.54	0.02		0.03			0.64	0.24
Uniform Delay, d1	24.4	7.1			11.8	9.1		15.5			18.4	16.4
Progression Factor	1.00	1.00			1.00	1.00		1.00			1.00	1.00
Incremental Delay, d2	5.7	0.3			0.3	0.0		0.0			3.7	0.3
Delay (s)	30.1	7.5			12.1	9.2		15.5			22.1	16.7
Level of Service	C	Α			В	Α		В			C	В
Approach Delay (s)		8.6			12.0			15.5			19.4	
Approach LOS		Α			В			В			В	
Intersection Summary												
HCM Average Control D			11.1	ŀ	ICM Le	vel of Se	rvice		В			
HCM Volume to Capacity			0.62									
Actuated Cycle Length (s			56.1			ost time (			8.0			
Intersection Capacity Util	ization		68.3%	I	CU Leve	el of Serv	rice .		C			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	ተተተ	7	ሻ	<b>↑</b> ↑↑	7	ሻ	4		ሻ	4	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	0.95	0.95		0.95	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.95		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1681	1681		1681	1703	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	1681	1681		1681	1703	1583
Volume (vph)	100	1951	30	20	1074	60	10	20	10	160	20	170
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	100	1951	30	20	1074	60	10	20	10	160	20	170
RTOR Reduction (vph)	0	0	14	0	0	34	0	9	0	0	0	147
Lane Group Flow (vph)	100	1951	16	20	1074	26	10	21	0	88	92	23
Turn Type	Prot		Perm	Prot		Perm	Split			Split		Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8						6
Actuated Green, G (s)	8.0	37.4	37.4	2.2	31.6	31.6	7.1	7.1		9.6	9.6	9.6
Effective Green, g (s)	8.0	37.4	37.4	2.2	31.6	31.6	7.1	7.1		9.6	9.6	9.6
Actuated g/C Ratio	0.11	0.52	0.52	0.03	0.44	0.44	0.10	0.10		0.13	0.13	0.13
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	196	2630	819	54	2222	692	165	165		223	226	210
v/s Ratio Prot	c0.06	c0.38		0.01	0.21		0.01	c0.01		0.05	c0.05	
v/s Ratio Perm			0.01			0.02						0.01
v/c Ratio	0.51	0.74	0.02	0.37	0.48	0.04	0.06	0.13		0.39	0.41	0.11
Uniform Delay, d1	30.3	13.7	8.5	34.4	14.5	11.6	29.6	29.8		28.7	28.7	27.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.2	1.2	0.0	4.2	0.2	0.0	0.2	0.3		1.2	1.2	0.2
Delay (s)	32.5	14.8	8.5	38.6	14.7	11.7	29.7	30.1		29.8	29.9	27.8
Level of Service	C	В	Α	D	В	В	C	C		C	C	C
Approach Delay (s)		15.6			14.9			30.0			28.9	
Approach LOS		В			В			C			C	
Intersection Summary												
HCM Average Control De	elay		16.8	H	ICM Lev	vel of Sea	rvice		B			
HCM Volume to Capacity	y ratio		0.61									
Actuated Cycle Length (s	)		72.3	S	sum of lo	st time (	s)		16.0			
Intersection Capacity Util			62.7%			of Serv	-		В			
Analysis Period (min)			15									
c Critical Lane Group												

138: Pacific Coast Hwy	<u> </u>	idiai st				•				\	I	
		<b>→</b>	•	•	•	`	7	ı		*	+	•
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	ተተተ	7	ሻ	ተተተ	7	ሻ	₽		ሻሻ	<b>↑</b>	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00		0.97	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.92		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	1723		3433	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	1770	1723		3433	1863	1583
Volume (vph)	160	2011	10	10	964	210	10	10	10	670	10	170
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	160	2011	10	10	964	210	10	10	10	670	10	170
RTOR Reduction (vph)	0	0	5	0	0	80	0	9	0	0	0	127
Lane Group Flow (vph)	160	2011	5	10	964	130	10	11	0	670	10	43
Turn Type	Prot		Perm	Prot		pm+ov	Split			Split		Perm
Protected Phases	7	4		3	8	6	2	2		6	6	
Permitted Phases			4			8						6
Actuated Green, G (s)	10.5	42.3	42.3	0.6	32.4	54.3	6.6	6.6		21.9	21.9	21.9
Effective Green, g (s)	10.5	42.3	42.3	0.6	32.4	54.3	6.6	6.6		21.9	21.9	21.9
Actuated g/C Ratio	0.12	0.48	0.48	0.01	0.37	0.62	0.08	0.08		0.25	0.25	0.25
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	213	2461	766	12	1885	983	134	130		860	467	397
v/s Ratio Prot	c0.09	c0.40		0.01	0.19	0.03	0.01	c0.01		c0.20	0.01	
v/s Ratio Perm	20.02		0.00			0.05						0.03
v/c Ratio	0.75	0.82	0.01	0.83	0.51	0.13	0.07	0.08		0.78	0.02	0.11
Uniform Delay, d1	37.2	19.2	11.7	43.4	21.4	6.8	37.6	37.6		30.5	24.7	25.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	13.8	2.2	0.0	168.3	0.2	0.1	0.2	0.3		4.5	0.0	0.1
Delay (s)	51.0	21.5	11.7	211.7	21.6	6.9	37.8	37.9		35.0	24.7	25.3
Level of Service	D	C	В	F	С	Α	D	D		D	С	C
Approach Delay (s)	_	23.6	_	_	20.6			37.8			32.9	
Approach LOS		C			C			D			С	
Intersection Summary												
HCM Average Control D	elav	_	24.7		HCM Le	vel of Se	rvice	_	С			
HCM Volume to Capacit			0.72	,	ICIVI DU	101 01 00	1 7100		C			
Actuated Cycle Length (s	•		87.4	•	Sum of 1	ost time (	(2)		12.0			
Intersection Capacity Util			78.0%			el of Serv			12.0 D			
Analysis Period (min)	uzauUII		15	,	CO LEV	ci of Selv	7100		D			
c Critical Lane Group			13									
CITICAL LARE GIOUP												

		ALL-WA	AY STOP C	ONTROL A	NALYSIS	•	,				
General Information				Site Information							
Analyst	SA			Intersection		Main S	Street/Walnut Aver	nue			
Agency/Co.				Jurisdiction	_						
Date Performed	3/31/20			Analysis Year	alysis Year 2030 Base Case + Project						
Analysis Time Period	AM Pea	<u> </u>		<u> </u>							
Project ID				T							
East/West Street: Walnut Aven				North/South Str	eet: Main Street						
Volume Adjustments a	ind Site Char							_			
Approach Movement	+ -		Eastbound	R	L	We	stbound T	R			
Volume (veh/h)	27	,	84	21	18		81	47			
%Thrus Left Lane				<u>-</u> -			<u> </u>				
Approach		<u> </u>	Northbound			Sou	ithbound				
Movement	L		T	R	L		Т	R			
Volume (veh/h)	21	1	81	39	37		91	47			
%Thrus Left Lane											
	East	tbound	Wes	stbound	North	nbound	Sout	hbound			
	L1	L2	L1	L2	L1	L2	L1	L2			
Configuration	LTR		LTR		LTR		LTR	<del>                                     </del>			
PHF	1.00		1.00		1.00		1.00	<del>                                     </del>			
Flow Rate (veh/h)	132		146		141		175				
% Heavy Vehicles	0	1	0		0		0				
No. Lanes		1		1		1	<del></del>	1			
Geometry Group		1	1	1				1			
Duration, T				0.	25						
Saturation Headway A	djustment W	orksheet						_			
Prop. Left-Turns	0.2	Ī	0.1	T T	0.1		0.2				
Prop. Right-Tums	0.2		0.3		0.3		0.3	<u> </u>			
Prop. Heavy Vehicle	0.0		0.0	1	0.0	<del>                                     </del>	0.0	<del> </del>			
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2			
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6			
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7			
hadj, computed	-0.1	1.7	-0.2	1.7	-0.1	1.7	-0.1	1.7			
		<u></u>	-0.2	<u> </u>	-0.1		-0.1	<u> </u>			
Departure Headway an		ne			1 000	T	<del> </del>				
hd, initial value (s)	3.20		3.20	1	3.20		3.20	ļ			
x, initial hd, final value (s)	0.12	<del> </del>	0.13	-	0.13		0.16	_			
x, final value	4.81 0.18	+	4.68 0.19	+	4.68	<b> </b>	4.65	<u> </u>			
Move-up time, m (s)		2.0		2.0	0.18	.0	0.23				
		T		1.0 T		. <i>0</i>	_	.0 T			
Service Time, t <sub>s</sub> (s)	2.8		2.7		2.7	<u> </u>	2.7	<u> </u>			
Capacity and Level of	Service										
	Eas	tbound	Wes	stbound	North	nbound	South	hbound			
	L1	L2	L1	L2	L1	L2	L1	L2			
Capacity (veh/h)	382		396		391		425				
Delay (s/veh)	8.84		8.77		8.73		9.01				
LOS	А		A		Α		Α				
Approach: Delay (s/veh)		8. <i>84</i>		.77		73		01			
LOS		Α			+	4	+	4			
Intersection Delay (s/veh)				8.	85						
Intersection LOS		A									

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		ALL-W	AY STOP C	ONTROL A	NALYSIS		, , ,					
General Information				Site Information								
Analyst	SA			Intersection		Main S	ain Street/Olive Avenue					
Agency/Co.				Jurisdiction								
Date Performed	3/31/20			Analysis Year		2030 E	Base Case + Proje	ct				
Analysis Time Period	AM Pe	<u>ak</u>										
Project ID				North/South Street: Main Street								
East/West Street: Olive Avenue		41-41		North/South Str	eet: Main Street							
Volume Adjustments a	na Site Char		Eastbound		-	athound						
Approach Movement	<del>-                                     </del>		T	R	<del>                                     </del>	vve	stbound T	R				
Volume (veh/h)	27 77			24	18		66	57				
%Thrus Left Lane								_				
Approach			Northbound			Sou	ithbound					
Movement	L T			R	L		T	R				
Volume (veh/h)	24 103			47	86		103	37				
%Thrus Left Lane												
	East	tbound Wes		stbound	North	bound	South	nbound				
	L1	L2	L1	L2	L1	L2	L1	L2				
Configuration	LTR		LTR		LTR		LTR					
PHF	1.00		1.00		1.00		1.00					
Flow Rate (veh/h)	128		141		174		226					
% Heavy Vehicles	0	0			0		0					
No. Lanes		1		1		1		1				
Geometry Group		1		1		1		1				
Duration, T	0.25											
Saturation Headway Ac	justment Worksheet											
Prop. Left-Turns	0.2		0.1		0.1		0.4					
Prop. Right-Turns	0.2		0.4		0.3		0.2					
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0					
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2				
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6				
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7				
hadj, computed	-0.1		-0.2		-0.1		-0.0					
Departure Headway and		ne			<u> </u>		0.0					
hd, initial value (s)	3.20	<del></del>	3.20	T	3.20		3.20					
x, initial	0.11	<del>                                     </del>	0.13	<del>                                     </del>	0.15		0.20					
hd, final value (s)	5.03	<del>                                     </del>	4.87		4.77		4.81	-				
x, final value	0.18		0.19		0.23		0.30					
Move-up time, m (s)		.0		2.0		.0		.0				
Service Time, t <sub>s</sub> (s)	3.0		2.9		2.8		2.8					
Capacity and Level of S	Service						<u> </u>					
<u> </u>		tbound	We	estbound	North	bound	South	nbound				
_	L1	L2	L1	L2	L1	L2	L1	L2				
Capacity (veh/h)	378	<del></del> -	391	+	424		476					
Delay (s/veh)	9.12		9.01		9.19		9.87					
LOS	A		A A		A A		A A					
Approach: Delay (s/veh)		9.12		9.01		<u> </u>	+	<b>1</b> 87				
LOS	<del>                                     </del>	A	1	A		4	j.					
Intersection Delay (s/veh)	1				37		<u> </u>					
Intersection LOS		A										

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		ALL-WA	Y STOP CO	ONTROL A	NALYSIS		, , ,				
General Information				Site Information							
Analyst	SA			Intersection		Lake S	treet/6th Street				
Agency/Co. Date Performed				Jurisdiction				,			
Date Performed	3/31/20			Analysis Year			ase Case + Proje	ct			
Analysis Time Period	AM Pea	<u> </u>									
Project ID  East/West Street: 6th Street				North 10 outle Ob	and I also Observe						
	- I 0'4 - Ob	-41-41		North/South Str	eet: Lake Street						
Volume Adjustments a	nd Site Chara		Eastbound			\ <u>\</u> \\\	estbound				
Approach Movement	<del>-</del>		T	R	<del>                                     </del>		T	R			
Volume (veh/h)	89		40	52	0		90	20			
%Thrus Left Lane											
Approach			lorthbound			Sou	Southbound				
Movement	L		<u>T</u>	R	L		T	R			
Volume (veh/h)	22 47			0	50		118 70				
%Thrus Left Lane					<del>,   </del>						
	East	tbound Wes		tbound	North	bound	South	nbound			
	L1	L2	L2 L1		L1	L2	L1	L.2			
Configuration	LTR		LTR		LTR		LTR				
PHF	1.00		1.00		1.00		1.00				
Flow Rate (veh/h)	181	110			69		238				
% Heavy Vehicles	0		0		0		0				
No. Lanes		1			1			1			
Geometry Group		1		1	1			1			
Duration, T	0.25										
Saturation Headway A		orksheet		_							
Prop. Left-Turns	0.5		0.0		0.3		0.2				
Prop. Right-Turns	0.3		0.2		0.0		0.3				
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	<u> </u>			
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2			
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	<i>-0.</i> 6			
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7			
hadj, computed	-0.1		-0.1		0.1		-0.1				
Departure Headway an	d Service Tin	ne									
hd, initial value (s)	3.20		3.20		3.20		3.20				
x, initial	0.16		0.10		0.06		0.21				
hd, final value (s)	4.73		4.79		5.00		4.58				
x, final value	0.24		0.15		0.10		0.30				
Move-up time, m (s)	2	.0	2	2.0	2.	0	2	.0			
Service Time, t <sub>s</sub> (s)	2.7		2.8		3.0		2.6				
Capacity and Level of	Service										
	East	bound	Wes	tbound	North	bound	Sout	hbound			
	L1	L2	L1	L2	L1	L2	L1	L2			
Capacity (veh/h)	431		360		319		488				
Delay (s/veh)	9.20		8.61		8.53		9.57				
LOS	A		A		A		Α				
Approach: Delay (s/veh)		9.20		61	8.8	53		57			
LOS		Α		A	1	<del>1</del>	,	<u>A</u>			
Intersection Delay (s/veh)				9.	.16						
Intersection LOS		· A									

ALL-WAY STOP CONTROL ANALYSIS Site Information General Information Lake Street/Orange Avenue Intersection Analyst SA Jurisdiction Agency/Co.
Date Performed Analysis Year 2030 Base Case + Project 3/31/2009 Analysis Time Period AM Peak Project ID East/West Street: Orange Avenue North/South Street: Lake Street Volume Adjustments and Site Characteristics Eastbound Westbound T R R Movement 30 330 39 242 42 41 Volume (veh/h) %Thrus Left Lane Northbound Southbound Approach R R Movement Ī. 30 18 32 107 41 46 Volume (veh/h) %Thrus Left Lane Eastbound Westbound Northbound Southbound L2 L1 L1 L2 L1 L2 L1 12 LTR LTR LTR LTR Configuration PHF 1.00 1.00 1.00 1.00 401 323 94 180 Flow Rate (veh/h) 0 % Heavy Vehicles 0 0 No. Lanes 1 1 1 1 1 1 1 1 Geometry Group Duration, T 0.25 Saturation Headway Adjustment Worksheet 0.1 0.1 0.3 0.2 Prop. Left-Turns 0.2 Prop. Right-Turns 0.1 0.1 0.2 Prop. Heavy Vehicle 0.0 0.0 0.0 0.0 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 hLT-adi -0.6 -0.6 -0.6 -0.6 -0.6 -0.6 -0.6 -0.6 hRT-adj 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 hHV-adi -0.0 -0.1 -0.1-0.1hadj, computed Departure Headway and Service Time hd, initial value (s) 3.20 3.20 3.20 3.20 0.29 0.08 x, initial 0.36 0.16 hd, final value (s) 5.22 5.33 6.18 5.92 0.58 0.48 0.16 0.30 x, final value Move-up time, m (s) 2.0 2.0 2.0 2.0 3.2 3.3 4.2 Service Time, t<sub>s</sub> (s) 3.9 Capacity and Level of Service Eastbound Westbound Northbound Southbound L2 L2 L2 L1 L2 L1 L1 L1 Capacity (veh/h) 651 573 344 430 15.22 13.10 10.37 11.39 Delay (s/veh) OS C В В В Approach: Delay (s/veh) 15.22 13.10 10.37 11.39 В В В LOS C 13.39 Intersection Delay (s/veh) Intersection LOS В

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## 2030 With Project - AM Peak Hour

108: Atlanta & Beach

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	14	<b>^</b>	7	7	<b>个</b> 个	7	ሻ	<b>ተ</b> ተኑ		<b>J</b>	<b>↑</b> ↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91		1.00	0.91	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98		1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	4974		1770	4895	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	4974		1770	4895	
Volume (vph)	104	303	50	64	505	180	20	434	74	200	645	215
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	104	303	50	64	505	180	20	434	74	200	645	215
RTOR Reduction (vph)	0	0	35	0	0	134	0	19	0	0	49	0
Lane Group Flow (vph)	104	303	15	64	505	46	20	489	0	200	811	0
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G(s)	7.3	19.3	19.3	4.6	16.6	16.6	2.2	14.9		10.1	22.8	
Effective Green, g (s)	7.3	19.3	19.3	4.6	16.6	16.6	2.2	14.9		10.1	22.8	
Actuated g/C Ratio	0.11	0.30	0.30	0.07	0.26	0.26	0.03	0.23		0.16	0.35	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	199	1052	471	125	905	405	60	1142	_	275	1720	
v/s Ratio Prot	c0.06	c0.09		0.04	c0.14		0.01	0.10		c0.11	c0.17	
v/s Ratio Perm			0.01			0.03						
v/c Ratio	0.52	0.29	0.03	0.51	0.56	0.11	0.33	0.43		0.73	0.47	
Uniform Delay, d1	27.2	17.5	16.2	29.1	21.0	18.5	30.6	21.4		26.1	16.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	2.5	0.2	0.0	3.5	0.8	0.1	3.3	0.3		9.2	0.2	
Delay (s)	29.6	17.7	16.2	32.6	21.7	18.6	33.9	21.6		35.3	16.6	
Level of Service	C	В	В	C	C	В	C	C		D	В	
Approach Delay (s)		20.2			21.9			22.1			20.1	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM Average Control De			21.0	H	ICM Lev	vel of Ser	rvice		C			
HCM Volume to Capacity			0.57									
Actuated Cycle Length (s)			64.9	S	lum of lo	st time (s	s)		16.0			
Intersection Capacity Util	ization		54.2%	I	CU Leve	el of Serv	rice		Α			
Analysis Period (min)			15									
<ul> <li>c Critical Lane Group</li> </ul>												

	<b>≯</b>	•	1	<b>†</b>	ļ	4		
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	<u>, , , , , , , , , , , , , , , , , , , </u>	7	ሻ	ተተተ	ተተ <sub>ጉ</sub>			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0			
Lane Util. Factor	1.00	1.00	1.00	0.91	0.91			
Frt	1.00	0.85	1.00	1.00	0.97			
Flt Protected	0.95	1.00	0.95	1.00	1.00			
Satd. Flow (prot)	1770	1583	1770	5085	4954			
Flt Permitted	0.95	1.00	0.95	1.00	1.00			
Satd. Flow (perm)	1770	1583	1770	5085	4954			
Volume (vph)	50	42	70	388	719	150		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00		
Adj. Flow (vph)	50	42	70	388	719	150		
RTOR Reduction (vph)	0	38	0	0	16	0		
Lane Group Flow (vph)	50	4	70	388	853	0		
Turn Type		Perm	Prot					
Protected Phases	4		5	2	6			
Permitted Phases		4						
Actuated Green, G (s)	6.4	6.4	4.5	45.4	36.9			
Effective Green, g (s)	6.4	6.4	4.5	45.4	36.9			
Actuated g/C Ratio	0.11	0.11	0.08	0.76	0.62			
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	189	169	133	3861	3057			_
v/s Ratio Prot	c0.03		c0.04	0.08	c0.17			
v/s Ratio Perm		0.00						
v/c Ratio	0.26	0.03	0.53	0.10	0.28			
Uniform Delay, d1	24.5	23.9	26.6	1.9	5.3			
Progression Factor	1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	0.8	0.1	3.7	0.0	0.1			
Delay(s)	25.3	24.0	30.3	1.9	5.3			
Level of Service	C	C	С	Α	Α			
Approach Delay (s)	24.7			6.2	5.3			
Approach LOS	C			Α	Α			
Intersection Summary								
HCM Average Control D			6.9	H	ICM Lev	el of Service	A	
HCM Volume to Capacity			0.30					
Actuated Cycle Length (s	)		59.8			st time (s)	12.0	
Intersection Capacity Util	ization		34.4%	I	CU Leve	l of Service	Α	
Analysis Period (min)			15					
c Critical Lane Group								

Appendix F, Traffic Impact Analysis - page 743 City of Huntington Beach - DTSP Update Program Environmental Impact Report

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Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	1,1	<b>†</b>		Y	<b>†</b> †	*	<u> </u>			1,4	<b>†</b>	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.95		1.00	0.95	1.00	1.00	1.00		0.97	1.00	0.88
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.96		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	3527		1770	3539	1583	1770	1788		3433	1863	2787
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	3527		1770	3539	1583	1770	1788		3433	1863	2787
Volume (vph)	410	1285	30	20	1608	354	30	110	40	373	70	830
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	410	1285	30	20	1608	354	30	110	40	373	70	830
RTOR Reduction (vph)	0	1	0	0	0	86	0	11	0	0	0	262
Lane Group Flow (vph)	410	1314	0	20	1608	268	30	139	0	373	70	568
Turn Type	Prot			Prot		Perm	Prot			Prot		Perm
Protected Phases	7	4		3	8	1 01111	5	2		1	6	1 0111
Permitted Phases	,	•			Ü	8		-		•	Ü	6
Actuated Green, G (s)	15.1	70.5		1.9	57.3	57.3	2.3	16.9		14.0	28.6	28.6
Effective Green, g (s)	15.1	70.5		1.9	57.3	57.3	2.3	16.9		14.0	28.6	28.6
Actuated g/C Ratio	0.13	0.59		0.02	0.48	0.48	0.02	0.14		0.12	0.24	0.24
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	435	2084		28	1700	760	34	253		403	447	668
v/s Ratio Prot	c0.12	0.37		0.01	c0.45	700	0.02	0.08		c0.11	0.04	000
v/s Ratio Perm	00.12	0.57		0.01	CO.43	0.17	0.02	0.00		CO.11	0.04	c0.20
v/c Ratio	0.94	0.63		0.71	0.95	0.35	0.88	0.55		0.93	0.16	0.85
Uniform Delay, d1	51.7	15.9		58.4	29.5	19.4	58.4	47.7		52.1	35.8	43.3
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	28.9	0.6		60.5	11.4	0.3	106.5	2.4		26.9	0.2	10.2
Delay (s)	80.6	16.5		119.0	40.9	19.7	164.9	50.1		79.0	36.0	53.5
Level of Service	60.0 F	В		F	70.5 D	В	F	D		79.0 E	D	D
Approach Delay (s)	1	31.8		1	37.9	Ь	1	69.2		L	60.0	D
Approach LOS		C			D			E			60.0 E	
Intersection Summary		C			D			L			Б	
HCM Average Control D	elay		42.4	I	ICM Le	vel of Se	rvice		D			
HCM Volume to Capacit			0.91									
Actuated Cycle Length (s			119.3	5	Sum of lo	st time (	s)		12.0			
Intersection Capacity Util	,		88.3%			el of Serv			E			
Analysis Period (min) c Critical Lane Group			15						2			

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	•	<b>→</b>	<b>←</b>	•	-	4	
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	1	ተተ	<b>↑</b> ↑		7/7	7	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	0.95		0.97	1.00	
Frt	1.00	1.00	0.99		1.00	0.85	
Flt Protected	0.95	1.00	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3539	3510		3433	1583	
Flt Permitted	0.95	1.00	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3539	3510		3433	1583	
Volume (vph)	340	1448	1571	90	59	410	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	340	1448	1571	90	59	410	
RTOR Reduction (vph)	0	0	3	0	0	12	
Lane Group Flow (vph)	340	1448	1658	0	59	398	
Turn Type	Prot					pm+ov	
Protected Phases	7	4	8		6	7	
Permitted Phases	,	•	Ü		Ü	6	
Actuated Green, G (s)	21.8	75.6	49.8		7.4	29.2	
Effective Green, g (s)	21.8	75.6	49.8		7.4	29.2	
Actuated g/C Ratio	0.24	0.83	0.55		0.08	0.32	
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	424	2940	1921		279	578	
v/s Ratio Prot	c0.19	0.41	c0.47		0.02	c0.16	
v/s Ratio Perm	00.17	0.41	CU.47		0.02	0.09	
v/c Ratio	0.80	0.49	0.86		0.21	0.69	
Uniform Delay, d1	32.6	2.2	17.7		39.1	26.9	
Progression Factor	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	10.5	0.1	4.3		0.4	3.4	
Delay (s)	43.0	2.3	22.0		39.5	30.3	
Level of Service	73.0 D	2.3 A	22.0 C		D	30.3 C	
Approach Delay (s)	D	10.1	22.0		31.5	C	
Approach LOS		В	22.0 C		31.5 C		
		ь	C		C		
Intersection Summary HCM Average Control D	elav		17.7	T-	ICM I es	vel of Servi	ce B
HCM Volume to Capacity			0.84	1.	ICIVI LC	CI OI DOLVI	В
Actuated Cycle Length (s			91.0	0	um of lo	st time (s)	12.0
Intersection Capacity Util			78.5%			el of Service	
Analysis Period (min)	ıızauon		15	I.	CO LCVC	TOT PETATOR	J D
c Critical Lane Group			13				
c Citical Lane Group							

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	•	<b>→</b>	<b>←</b>	•	-	4	
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	<u>*</u>	<b>↑</b> ↑	<b>1</b> 1	7	<u> </u>	7	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	1.00	0.85	
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	3539	1583	1770	1583	
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3539	3539	1583	1770	1583	
Volume (vph)	540	1497	1511	248	227	490	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	540	1497	1511	248	227	490	
RTOR Reduction (vph)	0	0	0	103	0	396	
Lane Group Flow (vph)	540	1497	1511	145	227	94	
Turn Type	Prot			Perm		Perm	
Protected Phases	7	4	8	1 01111	6	1 01111	
Permitted Phases	,	•	o	8	v	6	
Actuated Green, G (s)	37.1	93.3	52.2	52.2	16.6	16.6	
Effective Green, g (s)	37.1	93.3	52.2	52.2	16.6	16.6	
Actuated g/C Ratio	0.31	0.79	0.44	0.44	0.14	0.14	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	557	2801	1567	701	249	223	<del></del>
v/s Ratio Prot	c0.31	0.42	c0.43	701	c0.13	223	
v/s Ratio Perm	CO.51	0.42	CU.73	0.09	00.15	0.06	
v/c Ratio	0.97	0.53	0.96	0.03	0.91	0.42	
Uniform Delay, d1	39.8	4.4	31.9	20.2	49.9	46.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	30.1	0.2	15.0	0.1	34.3	1.3	
Delay (s)	69.9	4.6	46.9	20.3	84.2	47.5	
Level of Service	E	4.0 A	70.5 D	20.5 C	64.2 F	77.3 D	
Approach Delay (s)	L	22.0	43.2	C	59.2	D	
Approach LOS		22.0 C	73.2 D		39.2 E		
		C	D		Ľ		
Intersection Summary HCM Average Control D	elav		36.1		ICM I ex	el of Service	ee D
HCM Volume to Capacity	-		0.96	1.	ICIVI LCV	CI OI DCI VIC	D D
Actuated Cycle Length (s			117.9	9	um of lo	st time (s)	12.0
Intersection Capacity Util	,		94.3%			of Service	
Analysis Period (min)	uzauon		15	10	CO Leve	1 OI DELVICE	r
c Critical Lane Group			13				
c Citical Lane Group							

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Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	7	44	<b>^</b>	7	7	7	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	1.00	0.85	
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	3539	1583	1770	1583	
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3539	3539	1583	1770	1583	
Volume (vph)	340	1404	1739	70	110	100	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	340	1404	1739	70	110	100	
RTOR Reduction (vph)	0	0	0	25	0	89	
Lane Group Flow (vph)	340	1404	1739	45	110	11	
Turn Type	Prot			Perm		Perm	
Protected Phases	7	4	8		6		
Permitted Phases				8		6	
Actuated Green, G (s)	22.9	82.0	55.1	55.1	11.4	11.4	
Effective Green, g (s)	22.9	82.0	55.1	55.1	11.4	11.4	
Actuated g/C Ratio	0.23	0.81	0.54	0.54	0.11	0.11	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	400	2862	1923	860	199	178	
v/s Ratio Prot	c0.19	0.40	c0.49		c0.06		
v/s Ratio Perm				0.03		0.01	
v/c Ratio	0.85	0.49	0.90	0.05	0.55	0.06	
Uniform Delay, d1	37.6	3.1	20.8	10.9	42.6	40.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	15.7	0.1	6.5	0.0	3.3	0.1	
Delay (s)	53.3	3.2	27.2	10.9	45.9	40.4	
Level of Service	D	A	C	В	D	D	
Approach Delay (s)		13.0	26.6		43.3		
Approach LOS		В	C		D		
Intersection Summary							
HCM Average Control De	elay	_	21.2		ICM Lev	el of Servic	e C
HCM Volume to Capacity	-		0.85				
Actuated Cycle Length (s)			101.4	S	um of lo	st time (s)	12.0
Intersection Capacity Util			83.0%			l of Service	
Analysis Period (min)			15				
c Critical Lane Group							

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	•	<b>→</b>	•	•	<b>\</b>	4	
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		<b>^</b>	<b>^</b>	7	۳,	7	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	0.85	1.00	0.85	
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	3539	1583	1770	1583	
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3539	3539	1583	1770	1583	
Volume (vph)	20	1574	1859	30	50	20	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	20	1574	1859	30	50	20	
RTOR Reduction (vph)	0	0	0	11	0	17	
Lane Group Flow (vph)	20	1574	1859	19	50	3	
Turn Type	Prot			Perm		Perm	
Protected Phases	7	4	8		6	~ ~~~~	
Permitted Phases			_	8		6	
Actuated Green, G (s)	2.0	47.2	41.2	41.2	8.3	8.3	
Effective Green, g (s)	2.0	47.2	41.2	41.2	8.3	8.3	
Actuated g/C Ratio	0.03	0.74	0.65	0.65	0.13	0.13	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	56	2631	2296	1027	231	207	
v/s Ratio Prot	0.01	c0.44	c0.53		c0.03		
v/s Ratio Perm				0.01		0.00	
v/c Ratio	0.36	0.60	0.81	0.02	0.22	0.01	
Uniform Delay, d1	30.1	3.8	8.2	4.0	24.7	24.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	3.9	0.4	2.2	0.0	0.5	0.0	
Delay (s)	34.0	4.1	10.5	4.0	25.2	24.1	
Level of Service	С	Α	В	Α	С	C	
Approach Delay (s)		4.5	10.4		24.8		
Approach LOS		Α	В		С		
Intersection Summary							
HCM Average Control De	elay		8.0	H	ICM Lev	el of Servic	ce A
HCM Volume to Capacity	•		0.72				
Actuated Cycle Length (s			63.5	S	um of lo	st time (s)	12.0
Intersection Capacity Util			61.4%			l of Service	
Analysis Period (min)			15				
c Critical Lane Group							

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	۶	-	•	•	<b>—</b>	•	1	<b>†</b>	-	-	ţ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	75	ተተ <sub>ጉ</sub>		7	<b>↑</b> ↑					<u> </u>	<b>}</b>	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.99			0.93		1.00	0.89	
Flt Protected	0.95	1.00		0.95	1.00			0.98		0.95	1.00	
Satd. Flow (prot)	1770	5068		1770	5035			1701		1770	1654	
Flt Permitted	0.95	1.00		0.95	1.00			0.80		0.52	1.00	
Satd. Flow (perm)	1770	5068		1770	5035			1379		966	1654	
Volume (vph)	228	1266	30	40	1650	117	40	20	70	107	30	89
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	228	1266	30	40	1650	117	40	20	70	107	30	89
RTOR Reduction (vph)	0	2	0	0	7	0	0	36	0	0	77	0
Lane Group Flow (vph)	228	1294	0	40	1760	0	0	94	0	107	42	0
Turn Type	Prot			Prot	2700		Perm	<u>-</u>		Perm		
Protected Phases	7	4		3	8		1 01111	2		1 01111	6	
Permitted Phases	,	•			Ü		2	_		6	O	
Actuated Green, G (s)	18.1	53.1		4.0	39.0		_	15.6		15.6	15.6	
Effective Green, g (s)	18.1	53.1		4.0	39.0			15.6		15.6	15.6	
Actuated g/C Ratio	0.16	0.46		0.03	0.34			0.14		0.14	0.14	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)	279	2344		62	1710			187		131	225	
v/s Ratio Prot	c0.13	0.26		0.02	c0.35			107		151	0.03	
v/s Ratio Perm	00.15	0.20		0.02	00.55			0.07		c0.11	0.05	
v/c Ratio	0.82	0.55		0.65	1.03			0.50		0.82	0.19	
Uniform Delay, d1	46.8	22.3		54.7	37.9			46.0		48.2	44.0	
Progression Factor	1.00	1.00		1.00	1.00			1.00		1.00	1.00	
Incremental Delay, d2	16.7	0.3		20.7	29.7			2.1		31.0	0.4	
Delay (s)	63.4	22.5		75.4	67.6			48.1		79.2	44.4	
Level of Service	E	C		E	67.6 E			D		75.2 E	D	
Approach Delay (s)	L	28.7		L	67.8			48.1		L	60.9	
Approach LOS		C			67.6 E			D			00.5 E	
Intersection Summary		Ü			D			D			D	
HCM Average Control De	elav		50.5		ICM Lev	vel of Se	rvice					
HCM Volume to Capacity	•		0.93		A-2141 LOC	. 01 01 001	,100		D			
Actuated Cycle Length (s			114.8	S	um of lo	st time (	(2		42.1			
Intersection Capacity Util			71.3%			el of Serv	,		42.1 C			
Analysis Period (min)			15	1	CC LCVC	, or per a	100		C			
c Critical Lane Group			13									
critical Lance Group												

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	<b>≯</b>	$\rightarrow$	F	4-	•	-	*	
Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR	
Lane Configurations	, J	ተተተ	Ð	ተተተ	7	, N	7	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.91	1.00	0.91	1.00	1.00	1.00	
Frt	1.00	1.00	1.00	1.00	0.85	1.00	0.85	
Flt Protected	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	5085	1770	5085	1583	1770	1583	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	5085	1770	5085	1583	1770	1583	
Volume (vph)	161	1283	40	1623	252	254	154	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	161	1283	40	1623	252	254	154	
RTOR Reduction (vph)	0	0	0	0	72	0	92	
Lane Group Flow (vph)	161	1283	40	1623	180	254	62	
Turn Type	Prot	_	Prot		Perm		Perm	
Protected Phases	7	4	3	8		6		
Permitted Phases					8		6	
Actuated Green, G (s)	13.1	51.4	4.0	42.3	42.3	19.7	19.7	
Effective Green, g (s)	13.1	51.4	4.0	42.3	42.3	19.7	19.7	
Actuated g/C Ratio	0.11	0.44	0.03	0.36	0.36	0.17	0.17	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	198	2230	60	1835	571	298	266	
v/s Ratio Prot	c0.09	0.25	0.02	c0.32		c0.14		
v/s Ratio Perm					0.11		0.04	
v/c Ratio	0.81	0.58	0.67	0.88	0.31	0.85	0.23	
Uniform Delay, d1	50.9	24.7	55.9	35.2	27.0	47.3	42.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	21.9	0.4	24.5	5.5	0.3	20.3	0.4	
Delay (s)	72.7	25.1	80.5	40.6	27.3	67.6	42.6	
Level of Service	E	C	$\mathbf{F}$	D	C	$\mathbf{E}$	D	
Approach Delay (s)		30.4		39.7		58.2		
Approach LOS		C		D		E		
Intersection Summary								
HCM Average Control De	elay		38.1	F	ICM Lev	el of Ser	vice	D
HCM Volume to Capacity			0.86					
Actuated Cycle Length (s)	)		117.2	S	Sum of lo	st time (s	s)	42.1
Intersection Capacity Utili			64.4%			l of Serv	-	C
Analysis Period (min)			15					
c Critical Lane Group								

133. I acitic Coast IIW	acific Coast Hwy & Ist St									- 3)	incinio o	кероп
	•	<b>→</b>	$\rightarrow$	•	<b>←</b>	•	4	<b>†</b>	<b>/</b>	<b>\</b>	ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	<u> </u>	ተተሱ			ተተሱ		<u> </u>	<b>-</b> 4	7	``	4	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91		0.95	0.95	1.00	0.95	0.95	0.88
Frt	1.00	1.00		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	0.99	1.00	0.95	0.96	1.00
Satd. Flow (prot)	1770	5072		1770	4988		1681	1751	1583	1681	1702	2787
Flt Permitted	0.95	1.00		0.95	1.00		0.95	0.99	1.00	0.95	0.96	1.00
Satd. Flow (perm)	1770	5072		1770	4988		1681	1751	1583	1681	1702	2787
Volume (vph)	376	1102	20	60	1608	235	60	40	70	248	30	277
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	376	1102	20	60	1608	235	60	40	70	248	30	277
RTOR Reduction (vph)	0	1	0	0	15	0	0	0	65	0	0	244
Lane Group Flow (vph)	376	1121	0	60	1828	0	49	51	5	135	143	33
Turn Type	Prot			Prot			Split		Perm	Split		Perm
Protected Phases	7	4		3	8		2	2	1 01111	6	6	1 01111
Permitted Phases	,	•		3	O		2	_	2	Ū	Ü	6
Actuated Green, G (s)	13.0	37.2		4.7	28.9		8.6	8.6	8.6	13.2	13.2	13.2
Effective Green, g (s)	13.0	37.2		4.7	28.9		8.6	8.6	8.6	13.2	13.2	13.2
Actuated g/C Ratio	0.12	0.34		0.04	0.26		0.08	0.08	0.08	0.12	0.12	0.12
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	210	1718		76	1313		132	137	124	202	205	335
v/s Ratio Prot	c0.21	0.22		0.03	c0.37		c0.03	0.03	124	0.08	c0.08	333
v/s Ratio Perm	00.21	0.22		0.05	00.57		<b>c</b> 0.05	0.05	0.00	0.00	<b>c</b> 0.00	0.01
v/c Ratio	1.79	0.65		0.79	1.39		0.37	0.37	0.04	0.67	0.70	0.10
Uniform Delay, d1	48.4	30.8		52.1	40.4		48.0	48.0	46.8	46.2	46.4	43.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	374.2	0.9		40.6	181.1		1.8	1.7	0.1	8.1	9.9	0.1
Delay (s)	422.6	31.7		92.6	221.5		49.8	49.7	46.9	54.3	56.3	43.1
Level of Service	722.0 F	C		72.0 F	F		7).0 D	D	D	D	50.5 E	D
Approach Delay (s)		129.8		1	217.5		D	48.6	D	D	49.2	D
Approach LOS		125.6 F			F			70.0 D			D	
Intersection Summary		•			•			D			D	
HCM Average Control D	elav	_	156.1	Ţ	ICM Le	vel of Se	rvice		F			
HCM Volume to Capacit	•		1.19	•	1011110	. 01 01 00.	100		•			
Actuated Cycle Length (s	•		109.8	S	Sum of le	ost time (	(2		46.1			
Intersection Capacity Util			81.5%			el of Serv			70.1 D			
Analysis Period (min)	LLUUIUII		15	1		01 0011	100		D			
c Critical Lane Group			10									

154. I acitic Coast IIW	cc Hum	ington									nemo o	report
	•	<b>→</b>	•	•	<b>←</b>	•	4	<b>†</b>	<b>/</b>	<b>\</b>	<b>↓</b>	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	<b>^</b>	7	_ <u>}</u>	<b>^</b>	7		414		<b>*</b>	4	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		0.95		0.95	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		0.93		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.99		0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583		3253		1681	1770	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00		0.99		0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583		3253		1681	1770	1583
Volume (vph)	60	1339	10	40	1833	80	40	60	90	30	40	50
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	60	1339	10	40	1833	80	40	60	90	30	40	50
RTOR Reduction (vph)	0	0	4	0	0	17	0	82	0	0	0	46
Lane Group Flow (vph)	60	1339	6	40	1833	63	0	108	0	30	40	4
Turn Type	Prot		Perm	Prot		Perm	Split			Split	-	Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8						6
Actuated Green, G (s)	3.7	55.2	55.2	3.6	55.1	55.1		8.6		7.9	7.9	7.9
Effective Green, g (s)	3.7	55.2	55.2	3.6	55.1	55.1		8.6		7.9	7.9	7.9
Actuated g/C Ratio	0.04	0.60	0.60	0.04	0.60	0.60		0.09		0.09	0.09	0.09
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	72	2140	957	70	2136	955		306		145	153	137
v/s Ratio Prot	c0.03	0.38		0.02	c0.52			c0.03		0.02	c0.02	
v/s Ratio Perm			0.00			0.04						0.00
v/c Ratio	0.83	0.63	0.01	0.57	0.86	0.07		0.35		0.21	0.26	0.03
Uniform Delay, d1	43.5	11.5	7.2	43.1	14.9	7.5		38.7		38.8	39.0	38.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	53.2	0.6	0.0	10.8	3.7	0.0		0.7		0.7	0.9	0.1
Delay (s)	96.7	12.1	7.2	53.9	18.5	7.5		39.5		39.5	39.9	38.3
Level of Service	F	В	Α	D	В	Α		D		D	D	D
Approach Delay (s)		15.6			18.8			39.5			39.1	
Approach LOS		В			В			D			D	
Intersection Summary												
HCM Average Control D	elay		19.3	ŀ	ICM Le	vel of Sea	rvice		В	_		
HCM Volume to Capacity	•		0.74									
Actuated Cycle Length (s			91.3	S	Sum of lo	st time (	s)		16.0			
Intersection Capacity Util	,		69.7%			el of Serv			C			
Analysis Period (min)			15									
c Critical Lane Group												

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	۶	<b>→</b>	$\rightarrow$	•	←	*	4	<b>†</b>	<b>/</b>	-	<b>↓</b>	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	14.54	ተ <b>ተ</b> ጉ		75	44	7	7	<b>个</b> 个	7	14.54	<b>†</b>	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91		1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5068		1770	3539	1583	1770	3539	1583	3433	1863	1583
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	5068		1770	3539	1583	1770	3539	1583	3433	1863	1583
Volume (vph)	248	1291	30	40	1598	860	20	50	30	340	50	156
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	248	1291	30	40	1598	860	20	50	30	340	50	156
RTOR Reduction (vph)	0	2	0	0	0	320	0	0	27	0	0	0
Lane Group Flow (vph)	248	1319	0	40	1598	540	20	50	3	340	50	156
Turn Type	Prot			Prot		Perm	Prot		Perm	Prot		Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			Free
Actuated Green, G (s)	10.5	63.3		3.9	56.7	56.7	1.8	9.5	9.5	13.7	21.4	106.4
Effective Green, g (s)	10.5	63.3		3.9	56.7	56.7	1.8	9.5	9.5	13.7	21.4	106.4
Actuated g/C Ratio	0.10	0.59		0.04	0.53	0.53	0.02	0.09	0.09	0.13	0.20	1.00
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	339	3015		65	1886	844	30	316	141	442	375	1583
v/s Ratio Prot	c0.07	0.26		0.02	c0.45		0.01	0.01		c0.10	c0.03	
v/s Ratio Perm						0.34			0.00			0.10
v/c Ratio	0.73	0.44		0.62	0.85	0.64	0.67	0.16	0.02	0.77	0.13	0.10
Uniform Delay, d1	46.6	11.8		50.5	21.2	17.6	52.0	44.8	44.2	44.8	34.9	0.0
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.9	0.1		16.1	3.7	1.6	44.1	0.2	0.1	7.9	0.2	0.1
Delay (s)	54.5	11.9		66.6	24.9	19.2	96.1	45.0	44.3	52.7	35.1	0.1
Level of Service	D	В		$\mathbf{E}$	C	В	F	D	D	D	$\mathbf{D}$	Α
Approach Delay (s)		18.6			23.6			55.0			36.1	
Approach LOS		В			C			D			D	
Intersection Summary								_				
HCM Average Control D	-		24.1	I	ICM Le	vel of Se	rvice		C			
HCM Volume to Capacit			0.72									
Actuated Cycle Length (s	,		106.4			ost time (			12.0			
Intersection Capacity Util	lization		77.6%	I	CU Leve	el of Serv	rice		D			
Analysis Period (min)			15									
c Critical Lane Group												

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	۶	-	*	•	<b>—</b>	•	1	Ť	~	-	<b>↓</b>	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	ተተተ	7	ሻ	<b>↑</b> ↑↑	7		414			4	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0		4.0			4.0	4.0
Lane Util. Factor	1.00	0.91	1.00		0.91	1.00		0.95			1.00	1.00
Frt	1.00	1.00	0.85		1.00	0.85		1.00			1.00	0.85
Flt Protected	0.95	1.00	1.00		1.00	1.00		1.00			0.95	1.00
Satd. Flow (prot)	1770	5085	1583		5085	1583		3539			1770	1583
Flt Permitted	0.95	1.00	1.00		1.00	1.00		1.00			0.75	1.00
Satd. Flow (perm)	1770	5085	1583		5085	1583		3539			1398	1583
Volume (vph)	200	1401	10	0	2298	320	0	10	0	110	0	210
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	200	1401	10	0	2298	320	0	10	0	110	0	210
RTOR Reduction (vph)	0	0	2	0	0	136	0	0	0	0	0	182
Lane Group Flow (vph)	200	1401	8	0	2298	184	0	10	0	0	110	28
Turn Type	Prot		Perm	Prot		Perm	Perm			Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2			6		6
Actuated Green, G (s)	15.5	74.1	74.1		54.6	54.6		12.6			12.6	12.6
Effective Green, g (s)	15.5	74.1	74.1		54.6	54.6		12.6			12.6	12.6
Actuated g/C Ratio	0.16	0.78	0.78		0.58	0.58		0.13			0.13	0.13
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0		4.0			4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0			3.0	3.0
Lane Grp Cap (vph)	290	3979	1239		2932	913		471			186	211
v/s Ratio Prot	c0.11	0.28			c0.45			0.00				
v/s Ratio Perm			0.00			0.12					c0.08	0.02
v/c Ratio	0.69	0.35	0.01		0.78	0.20		0.02			0.59	0.13
Uniform Delay, d1	37.3	3.1	2.3		15.5	9.6		35.7			38.6	36.2
Progression Factor	1.00	1.00	1.00		1.00	1.00		1.00			1.00	1.00
Incremental Delay, d2	6.7	0.1	0.0		1.4	0.1		0.0			5.0	0.3
Delay (s)	44.0	3.1	2.3		16.9	9.7		35.7			43.6	36.5
Level of Service	D	Α	Α		В	Α		D			D	D
Approach Delay (s)		8.2			16.0			35.7			38.9	
Approach LOS		Α			В			D			D	
Intersection Summary												
HCM Average Control De	elav		14.9		ICM Lev	vel of Se	rvice		В			
HCM Volume to Capacity	-		0.74	-	201.2							
Actuated Cycle Length (s)			94.7	S	Sum of Ic	st time (	s)		12.0			
Intersection Capacity Util			78.2%			el of Serv			D			
Analysis Period (min)			15	•	20 2011				ے			
c Critical Lane Group			13									
2 Critical Danie Group												

20112 00220 002012111	00 1.1208											<u>_</u>
	•	<b>→</b>	•	•	<b>←</b>	*	1	<b>†</b>	<b>/</b>	<b>&gt;</b>	<b>↓</b>	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ħ	ተተተ	7	ħ	ተተተ	7	7	4		75	4	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	0.95	0.95		0.95	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.96		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	0.97	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1681	1703		1681	1719	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	0.97	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	1681	1703		1681	1719	1583
Volume (vph)	150	1291	30	30	2648	190	20	30	10	110	30	100
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	150	1291	30	30	2648	190	20	30	10	110	30	100
RTOR Reduction (vph)	0	0	10	0	0	69	0	9	0	0	0	91
Lane Group Flow (vph)	150	1291	20	30	2648	121	20	31	0	68	72	9
Turn Type	Prot		Perm	Prot		Perm	Split	_	_	Split		Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8					_	6
Actuated Green, G (s)	10.0	69.3	69.3	3.5	62.8	62.8	7.4	7.4		9.7	9.7	9.7
Effective Green, g (s)	10.0	69.3	69.3	3.5	62.8	62.8	7.4	7.4		9.7	9.7	9.7
Actuated g/C Ratio	0.09	0.65	0.65	0.03	0.59	0.59	0.07	0.07		0.09	0.09	0.09
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	167	3328	1036	58	3015	939	117	119		154	157	145
v/s Ratio Prot	c0.08	0.25		0.02	c0.52		0.01	c0.02		0.04	c0.04	
v/s Ratio Perm			0.01			0.08						0.01
v/c Ratio	0.90	0.39	0.02	0.52	0.88	0.13	0.17	0.26		0.44	0.46	0.06
Uniform Delay, d1	47.4	8.5	6.4	50.4	18.3	9.5	46.4	46.6		45.5	45.6	43.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	41.2	0.1	0.0	7.6	3.2	0.1	0.7	1.2		2.0	2.1	0.2
Delay (s)	88.7	8.6	6.4	58.0	21.5	9.6	47.1	47.8		47.6	47.7	44.1
Level of Service	F	Α	Α	Е	С	A	D	D		D	D	D
Approach Delay (s)	_	16.7			21.1		_	47.6		_	46.2	_
Approach LOS		В			C			D			D	
Intersection Summary												
HCM Average Control D	elav		21.3	F	ICM Lev	vel of Se	vice		С			
HCM Volume to Capacity	•		0.78	-	201.12							
Actuated Cycle Length (s			105.9	.5	Sum of lo	st time (	(a		16.0			
Intersection Capacity Util			80.0%			el of Serv	,		D			
Analysis Period (min)			15	•		- 51 2011			ב			
c Critical Lane Group												

138: Pacific Coast flwy		Miajot									icino o	-
	•	-	•	•	•	*	1	<b>†</b>	~	-	<b>↓</b>	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	75	ተተተ	7	<b>Y</b>	ተተተ	7	ď	<b>1</b>		14.54		7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00		0.97	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	1743		3433	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	1770	1743		3433	1863	1583
Volume (vph)	220	1481	10	20	2198	550	20	40	30	290	30	160
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	220	1481	10	20	2198	550	20	40	30	290	30	160
RTOR Reduction (vph)	0	0	4	0	0	183	0	24	0	0	0	139
Lane Group Flow (vph)	220	1481	6	20	2198	367	20	46	0	290	30	21
Turn Type	Prot		Perm	Prot		pm+ov	Split			Split		Perm
Protected Phases	7	4		3	8	6	2	2		6	6	
Permitted Phases			4			8						6
Actuated Green, G (s)	15.9	68.3	68.3	1.9	54.3	68.3	8.4	8.4		14.0	14.0	14.0
Effective Green, g (s)	15.9	68.3	68.3	1.9	54.3	68.3	8.4	8.4		14.0	14.0	14.0
Actuated g/C Ratio	0.15	0.63	0.63	0.02	0.50	0.63	0.08	0.08		0.13	0.13	0.13
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	259	3198	996	31	2543	996	137	135		443	240	204
v/s Ratio Prot	c0.12	0.29		0.01	c0.43	0.05	0.01	c0.03		c0.08	0.02	
v/s Ratio Perm			0.00			0.18						0.01
v/c Ratio	0.85	0.46	0.01	0.65	0.86	0.37	0.15	0.34		0.65	0.12	0.10
Uniform Delay, d1	45.2	10.6	7.5	53.0	23.9	9.7	46.8	47.5		45.0	41.9	41.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	22.0	0.1	0.0	37.9	3.3	0.2	0.5	1.5		3.5	0.2	0.2
Delay (s)	67.2	10.7	7.5	90.9	27.2	10.0	47.2	49.0		48.5	42.1	42.0
Level of Service	E	В	Α	F	C	Α	D	D		D	D	D
Approach Delay (s)		17.9			24.3			48.6			45.9	
Approach LOS		В			C			D			D	
Intersection Summary											_	
HCM Average Control D			24.6	I	ICM Le	vel of Se	rvice		C			
HCM Volume to Capacity	y ratio		0.78									
Actuated Cycle Length (s	)		108.6			ost time (			16.0			
Intersection Capacity Util	ization		79.6%	I	CU Leve	el of Serv	rice		D			
Analysis Period (min)			15									
c Critical Lane Group												

ALL-WAY STOP CONTROL ANALYSIS General Information Site Information Main Street/Walnut Avenue Intersection ŜĀ Analyst Jurisdiction Agency/Co. Analysis Year 2030 Base Case + Project Date Performed 3/31/2009 Analysis Time Period PM Peak Project ID East/West Street: Walnut Avenue North/South Street: Main Street Volume Adjustments and Site Characteristics Eastbound Westbound Movement R R т 21 134 87 53 138 51 Volume (veh/h) %Thrus Left Lane Northbound Southbound Approach Movement R R 38 161 83 52 121 41 Volume (veh/h) %Thrus Left Lane Eastbound Westbound Northbound Southbound L2 L2 L1 L1 L1 L2 L1 L2 LTR LTR LTR Configuration LTR PHF 1.00 1.00 1.00 1.00 242 242 282 214 Flow Rate (veh/h) 0 % Heavy Vehicles 0 0 0 No. Lanes 1 1 1 1 1 1 1 1 Geometry Group Duration, T 0.25 Saturation Headway Adjustment Worksheet Prop. Left-Turns 0.2 0.2 0.1 0.1 0.2 Prop. Right-Turns 0.4 0.3 0.2 Prop. Heavy Vehicle 0.0 0.0 0.0 0.0 hLT-adj 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 hRT-adj -0.6 -0.6 -0.6 -0.6 -0.6 -0.6-0.6-0.6 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 hHV-adi -0.2 -0.1 hadj, computed -0.1-0.1Departure Headway and Service Time 3.20 hd, initial value (s) 3.20 3.20 3.20 0.22 x, initial 0.22 0.25 0.19hd, final value (s) 5.62 5.73 5.58 5.78 0.38 0.38 0.44 0.34 k, final value Move-up time, m (s) 2.0 2.0 2.0 2.0 Service Time, t, (s) 3.6 3.7 3.6 3.8 Capacity and Level of Service Eastbound Westbound Northbound Southbound L2 L1 L2 L2 12 L1 L1 L1 Capacity (veh/h) 492 492 532 464 11.79 Delay (s/veh) 11.99 12.27 12.84 LOS В В В В Approach: Delay (s/veh) 11.99 12.27 12.84 11.79 В В LOS В В 12.26 Intersection Delay (s/veh) Intersection LOS В

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**ALL-WAY STOP CONTROL ANALYSIS** Site Information General Information Intersection Main Street/Olive Avenue SA Analyst Jurisdiction Agency/Co. 2030 Base Case + Project Analysis Year Date Performed 3/31/2009 Analysis Time Period PM Peak Project ID East/West Street: Olive Avenue North/South Street: Main Street Volume Adjustments and Site Characteristics Eastbound Westbound Approach R R Movement 41 146 52 42 137 70 Volume (veh/h) %Thrus Left Lane Northbound Southbound Approach Movement R R 63 156 52 61 136 52 Volume (veh/h) %Thrus Left Lane Eastbound Westbound Northbound Southbound L1 L2 L1 L2 L1 L2 L1 L2 LTR LTR LTR LTR Configuration PHF 1.00 1.00 1.00 1.00 Flow Rate (veh/h) 239 249 271 249 % Heavy Vehicles 0 0 0 No. Lanes 1 1 1 1 1 1 7 Geometry Group 0.25 Duration, T Saturation Headway Adjustment Worksheet Prop. Left-Turns 0.2 0.2 0.2 0.2 0.2 0.3 0.2 0.2 Prop. Right-Turns Prop. Heavy Vehicle 0.0 0.0 0.0 0.0 0.2 0.2 0.2 0.2 hLT-adi 0.2 0.2 0.2 0.2 hRT-adj -0.6 -0.6 -0.6 -0.6 -0.6 -0.6 -0.6 -0.6 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 hHV-adj -0.1 -0.1 -0.1 -0.1 hadj, computed Departure Headway and Service Time 3.20 3.20 hd, initial value (s) 3.20 3.20 x, initial 0.21 0.22 0.24 0.22 hd, final value (s) 5.87 5.81 5.80 5.83 0.39 x, final value 0.40 0.44 0.40 2.0 2.0 2.0 Move-up time, m (s) 2.0 3.9 3.8 3.8 3.8 Service Time, t (s) Capacity and Level of Service Eastbound Westbound Northbound Southbound L1 L2 L1 L2 L1 L2 L1 L2 489 Capacity (veh/h) 499 521 499 Delay (s/veh) 12.56 12.65 13.21 12.72 В \_os В В В Approach: Delay (s/veh) 12.56 12.65 13.21 12.72 В LOS В В В 12.80 Intersection Delay (s/veh) Intersection LOS

Appendix F, Traffic Impact Analysis - page 759 of 1
City of Huntington Beach - DTSP Update

Program Environmental impact Report

		ALL-WA	AY STOP C	ONTROL A	ANALYSIS				
General Information				Site Inform	ation				
Analyst	SA			Intersection		Lake S	treet/6th Street		
Agency/Co.				Jurisdiction		0000 5	D D		
Date Performed	3/31/200			Analysis Year		2030 B	ase Case + Projec	<u> </u>	
Analysis Time Period	PM Peal	(		J[					
Project ID				No distance de Oto			_		
East/West Street: 6th Street				North/South Str	reet: Lake Street				
Volume Adjustments a	nd Site Chara		Caatharrad			10/0	a tha a consider		
Approach Movement	<del>-  </del>		Eastbound	R	<del>                                     </del>	vve	stbound	R	
Volume (veh/h)	86		70	34	10		80	30	
%Thrus Left Lane					1				
Approach	<del></del>	<u> </u>	Northbound			Sou	thbound		
Movement	L		Т	R	L		Т	R	
Volume (veh/h)	33		266	20	40		243	125	
%Thrus Left Lane									
	Eastb	ound	Wes	tbound	North	bound	South	bound	
	L1	L2	L1	L2	L1	L2	L1	L2	
Configuration	LTR		LTR	<del>                                     </del>	LTR		LTR		
PHF	1.00		1.00		1.00		1.00		
Flow Rate (veh/h)	190		120		319		408		
% Heavy Vehicles	0		0		0		0		
No. Lanes	1		_	1	1			1	
Geometry Group	1			1	1			1	
Duration, T	<u> </u>			0	.25				
Saturation Headway A	diustment Wo	rksheet							
Prop. Left-Turns	0.5		0.1		0.1		0.1		
Prop. Right-Turns	0.2		0.3		0.1		0.3		
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0		
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	
hadj, computed	-0.0		-0.1	<del>'''</del>	-0.0	<del>                                     </del>	-0.2	***	
Departure Headway an			-0.1	<u> </u>	-0.0		0.2		
hd, initial value (s)	3.20		3.20	T	3.20	T	3.20	Ī	
x, initial	0.17		0.11		0.28		0.36	_	
hd, final value (s)	6.13		6.20		5.54		5.27		
x, final value	0.32		0.21	<del>                                     </del>	0.49		0.60		
Move-up time, m (s)	2.	0		2.0	2.	0		.0	
Service Time, t <sub>s</sub> (s)	4.1	ř	4.2	T	3.5	Ĭ	3.3		
Capacity and Level of			7.2		- 0.0		1		
Capacity and Level of			14/04	stbound	North	bound	Count	nbound	
		oound			_			т —	
	L1	L2	L1	L2	L1	L2	L1	L2	
Capacity (veh/h)	440		370	_	569		654	_	
Delay (s/veh)	12.03		10.80		13.76		15.78		
LOS	В		В		В		C		
Approach: Delay (s/veh)	1;	2.03		0.80	13.76 15.78				
LOS		В		B B C					
Intersection Delay (s/veh)				13.90					
Intersection LOS					В				

		ALL-WA	AY STOP C	ONTROL A	ANALYSIS			
General Information				Site Inform	ation			
Analyst	SA			Intersection		Lake S	treet/Orange Ave	nue
Agency/Co.				Jurisdiction				
Date Performed	3/31/20			Analysis Year		2030 E	Base Case + Proje	ct
Analysis Time Period	PM Pea	<u> </u>		┦				
Project ID				h				
East/West Street: Orange Aver				North/South Sti	reet: Lake Street			
Volume Adjustments a	ind Site Chara		Cashanad		<del></del> -	18/-		
Approach Movement	<del>                                     </del>		Eastbound T	R		vve	stbound T	R
Volume (veh/h)	45	;	299	73	154		345	153
%Thrus Left Lane			_					
Approach			Northbound			Sou	thbound	
Movement	L		T	R	L		T	R
Volume (veh/h)	84	!	91	164	44		200	63
%Thrus Left Lane								
	East	bound	Wes	stbound	North	bound	South	nbound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	1.00		1.00		1.00		1.00	
Flow Rate (veh/h)	417		652		339		307	
% Heavy Vehicles	0		0		0		0	
No. Lanes		1		1		<u>.                                      </u>		1
Geometry Group		1		1		1	1	1
Duration, T			_		.25		<u> </u>	
Saturation Headway A	djustment Wo	orksheet						
Prop. Left-Turns	0.1		0.2	T -	0.2		0.1	
Prop. Right-Turns	0.2		0.2		0.5		0.2	
Prop. Heavy Vehicle	0.0		0.0	<u> </u>	0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	-0.1		-0.1	<del>                                     </del>	-0.2	<del></del>	-0.1	***
Departure Headway an		<u> </u>	- 0.7		1 0.2	<u> </u>	-0.7	
hd, initial value (s)	3.20	T	3.20	<del></del>	3.20		3.20	<del></del>
x, initial	0.37	<del>-</del>	0.58	1	0.30	<del>-</del>	0.27	
hd, final value (s)	8.77		8.76	<del> </del>	9.00		9.30	
x, final value	1.02	<del>                                     </del>	1.59	<del>                                      </del>	0.85		0.79	_
Move-up time, m (s)		.0		2.0		0		.0
Service Time, t <sub>s</sub> (s)	6.8	<del>Ĭ</del>	6.8	T	7.0	<del>Ĭ</del>	7.3	<u> </u>
Capacity and Level of			1 0.0		1 7.0	<u></u> _	7.0	<u> </u>
Capacity and Level of		bound	10/0/	stbound	North	bound	Court	nbound
	_							
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	417	<del>                                     </del>	652		396		382	ļ
Delay (s/veh)	78.73		297.48		45.66		39.88	
LOS	F		F		E.		E	
Approach: Delay (s/veh)	7	8.73		297.48 45.66 39.88				
LOS		<u>F</u>		F E E				
Intersection Delay (s/veh)				148.40				
Intersection LOS					F			

108: Atlanta & Beach

Too. Hilania & Beach												report
	•	<b>→</b>	•	•	<b>←</b>	*	4	<b>†</b>	<i>&gt;</i>	<b>\</b>	ļ	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	<b>*</b>	<b>†</b> †	7	ሻ	朴	7	ሻ	ተተጐ		ሻ	<b>↑</b> ↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91		1.00	0.91	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	4999		1770	4945	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	4999		1770	4945	
Volume (vph)	225	590	30	77	538	220	90	921	117	310	549	124
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	225	590	30	77	538	220	90	921	117	310	549	124
RTOR Reduction (vph)	0	0	21	0	0	175	0	13	0	0	30	0
Lane Group Flow (vph)	225	590	9	77	538	45	90	1025	0	310	643	. 0
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)	16.7	30.0	30.0	7.3	20.6	20.6	7.9	27.1		21.3	40.5	
Effective Green, g (s)	16.7	30.0	30.0	7.3	20.6	20.6	7.9	27.1		21.3	40.5	
Actuated g/C Ratio	0.16	0.29	0.29	0.07	0.20	0.20	0.08	0.27		0.21	0.40	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	291	1044	467	127	717	321	137	1332		371	1969	
v/s Ratio Prot	c0.13	0.17		0.04	c0.15		0.05	c0.20		c0.18	0.13	
v/s Ratio Perm			0.01			0.03						
v/c Ratio	0.77	0.57	0.02	0.61	0.75	0.14	0.66	0.77		0.84	0.33	
Uniform Delay, d1	40.7	30.3	25.4	45.8	38.1	33.3	45.6	34.4		38.5	21.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	12.0	0.7	0.0	7.9	4.4	0.2	10.8	2.7		14.9	0.1	
Delay (s)	52.7	31.0	25.4	53.7	42.6	33.5	56.4	37.2		53.5	21.3	
Level of Service	D	C	C	D	D	C	E	D		D	C	
Approach Delay (s)		36.6			41.2			38.7			31.4	
Approach LOS		D			D			D			C	
Intersection Summary			_									
HCM Average Control De	-		36.9	F	ICM Le	vel of Se	rvice		D			
HCM Volume to Capacity	y ratio		0.78									
Actuated Cycle Length (s)	)		101.7	S	Sum of lo	st time (	s)		16.0			
Intersection Capacity Util	ization		78.2%	I	CU Leve	el of Serv	rice		D			
Analysis Period (min)			15									
c Critical Lane Group												